EA Form R 1/2007

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

# ENVIRONMENTAL ASSESSMENT
**For Routine Actions with Limited Environmental Impact**

## Part I. Proposed Action Description

1. *Applicant/Contact name and address*: Keil Ranch Inc.
   Dale Keil, President
   315 S. Main
   Conrad, MT 59425

2. *Type of action*: Application for Beneficial Water Use Permit 30025890 41P

3. *Water source name*: Marias River Above Tiber Reservoir (Lake Elwell)

4. *Location affected by project*: Point of Diversion located in the NWSWSW, Section 8, T30N, R1W, Toole County. Place of Use is comprised of 2,269+/- acres located in portions of Sections 7, 17, 18, 19, and 20, T30N, R1W, Pondera and Toole Counties and portions of Sections 13, 14, 22, 23, and 27 T30N, R2W, Pondera County.

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits*:

   The applicant is seeking a provisional permit to appropriate water from the Marias River. The proposed point of diversion is located six miles upstream from the backwaters of Tiber Reservoir (Lake Elwell). The stated use of the water will be to irrigate 2,269+/- acres of cropland that has not been historically irrigated. The application is seeking a maximum flow rate of 40.2 cfs and a maximum volume of 3,988 acre feet to be diverted from January 1st to December 31st inclusive of each year. The application is proposing to utilize eight pivots ranging in size from 59 to 633 acres in size. The applicant states that the benefits of the project are an increase in the quality and quantity of the cash crops produced and an increase of the property tax base of Pondera and Toole Counties.

The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

6. *Agencies consulted during preparation of the Environmental Assessment: (include agencies with overlapping jurisdiction)*
Montana Natural Heritage Program
Montana State Historic Preservation Office
Natural Resources Conservation Service (NRCS) Soils Data Website

Dept. of Environmental Quality Website (TMDL 303d listing)
MT Dept. of Fish, Wildlife & Parks Website (Montana Rivers Information System)
National Wetlands Inventory Website

## Part II. Environmental Review

### 1. Environmental Impact Checklist:

## PHYSICAL ENVIRONMENT

**WATER QUANTITY, QUALITY AND DISTRIBUTION**

***Water quantity*** *- Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

*Determination*: The Marias River is not currently classified as a dewatered stream by the Dept. of Fish, Wildlife, and Parks (DWFP). DWFP has a water reservation granted on Marias River from Tiber Reservoir upstream to the confluence of Cut Bank Creek. The water reservation flow rate is 200 cfs from January 1 to December 31 inclusive of each year. The DWFP water reservation information below is for informational purposes only.

***From (rm 106.3) to (rm 171.5) TIBER RES to CUT BANK CR***

***Reservation: Type:*** ***Water Reservation Granted***

| Begin | End | Flow (CFS) | Priority Date |
|---|---|---|---|
| 01/01 | 12/31 | 200 | 7/1/1985 |

***Water quality*** *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

*Determination:* The Marias River from Tiber Reservoir upstream to the confluence of Cut Bank Creek has been listed by the Montana Department of Environmental Quality (MDEQ) on the 2006 TMDL 303(d) list as a Water Quality Category 5. The 2006 303(d) lists no water uses that are impaired at the time the source was surveyed. The source is listed for beneficial use as fully supporting for agriculture, aquatic life, cold water fishery, drinking water, and industrial uses and

primary contact recreation. Water quality is not expected to be affected by the proposed irrigation project.

***Groundwater*** *- Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

*Determination*: Where the source is surface water from the Marias River, limited analysis of impacts to groundwater were considered and therefore unknown.

**DIVERSION WORKS** *- Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

*Determination*: The proposed diversion works consist of two trailer mounted Chrisafulli pumps that will be placed in the river channel at sufficient depths to avoid cavitations in the flow of water supplied to the pumps. The particular type of pumps that are to be used at the specified point of diversion are to be removed from the river channel during periods of freezing weather to avoid damage from ice jams that occur in this particular location. Other diversion works proposed in the application are a series of centrifugal pumps along with arterial and ancillary buried pipe to supply flow to the center pivots. The construction and operation of the diversion works do not include any flow modifications, barriers, dams, or well construction. Preliminary diversion works schematics and specifications were designed by a professional engineer whose services were retained by the applicant. Impacts to riparian areas should be minimal and limited in scope to the construction of the diversion works.

**UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

***Endangered and threatened species*** *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

*Determination*: According to a report from the Montana Natural Heritage program, there is one species of concern and one species listed in the Inferred Extent Report. The species of concern listed is a bird commonly known as the Chestnut-collared Longspur. Information referenced on the Montana Heritage website described the bird's habitat in the following: Breeding uses level to rolling mixed-grass and shortgrass uplands, and, in drier habitats, moist lowlands. Prefers open prairie and avoids excessively shrubby areas. However, scattered shrubs and other low elevated perches such as Canada thistle often are used for singing. Areas with dense litter accumulations are avoided.

The species identified in the Inferred Extent Report is commonly known as the Burbot. According to a study by Montana Department of Fish, Wildlife and Parks (DFWP) biologists, they are a cold water, bottom-dwelling fish that typically range from 15-22 inches in length,

although they can reach lengths up to 46 inches. They typically weigh 1-3 pounds, but can grow as heavy as 12 pounds. They are long-lived, up to 14 years, and do not reach reproductive maturity until they are 3-4 years of age. Burbot are a reclusive fish that prefer to be near the bottom in areas of low light, and are typically found in the deepest waters available, as well as areas with aquatic vegetation, rock piles, submerged logs, and other underwater structures where they can hide during the day. Because of their use of deep-water habitat and their limited sport fish potential, not much is known about Burbot population status and trends according to the DFWP report.

No significant impact is anticipated due to the proposed project being consistent in nature with other agricultural based activities in the immediate area.

***Wetlands*** **-** *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

*Determination*: No known wetlands exist in the project area according to the National Wetlands Inventory geo-database. No wetland resources are anticipated to be impacted by the proposed project.

***Ponds*** **-** *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

*Determination*: There are no ponds associated with the proposed project therefore an assessment of this component does not apply.

**GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE** - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

*Determination*: A review of NRCS soils data was conducted listing soil types and suitability of use of the types located within the project area. Soil types listed are Kremlin loam, 0 to 4 percent slopes, Ethridge silty clay loam, 0 to 4 percent slopes, Floweree silt loam, 0 to 4 percent slope, Lonna-Floweree silt loams, 2 to 8 percent slopes, Telstad-Joplin loams, 4 to 8 percent slopes, Hillon-Kevin clay loams, 8 to 15 percent slopes, Scobey-Kevin clay loams, 0 to 4 percent slopes, Telstad-Joplin loams, 0 to 4 percent slopes, Scobey-Kevin clay loams, 4 to 8 percent slopes, Neldore-Lambeth-Rock outcrop complex, 35 to 70 percent slopes. Further soils analysis was submitted by the applicant pertaining to the implementation of management practices and monitoring systems to control saline seep. Due to the design, operation and intended purpose of the project, impacts should be negligible.

**VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS** - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

*Determination*: There will be minimal stream bank disturbance during the construction phase of the proposed project. The current banks of the Marias River are currently in native vegetation primarily consisting of deciduous trees and shrubs. The proposed pumping station should not have a significant impact to existing vegetative cover. The applicant states in the application that it is desirable to control noxious weeds within the project area. No significant impact of vegetative cover, quantity and quality is anticipated by the proposed project.

**AIR QUALITY** - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

*Determination*: Crop production will likely be significantly increased therefore positive impacts to air quality may occur as a result of this project by reducing the amount of carbon dioxide in the air through plant respiration.

**HISTORICAL AND ARCHEOLOGICAL SITES** - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

*Determination*: According to the Montana State Historical Society (SHPO), there have been a few previously recorded sites within the designated search locales. In addition to the sites, there have been previously conducted resource inventories conducted within the project area and further inventories are felt to be unwarranted at this time. Any further cultural resource inventories can be conducted at the private property owner's discretion.

**DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY** - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

*Determination*: No additional impacts on other environmental resources were identified.

## HUMAN ENVIRONMENT

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

*Determination*: There are no known environmental plans or goals in this area.

**ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

*Determination*: The project should have no significant or harmful impact on recreational or wilderness activities.

**HUMAN HEALTH** - *Assess whether the proposed project impacts on human health.*

*Determination*: The project should have no impact on human health.

**PRIVATE PROPERTY** - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**x**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

*Determination*: No adverse effect on private property rights is anticipated from this project.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

*Impacts on:*

*(a) Cultural uniqueness and diversity?* No significant impact.

(*b) Local and state tax base and tax revenues?* Potential positive impact.

*(c) Existing land uses?* Project is consistent with other land uses in the immediate area therefore no significant impact is anticipated.

(*d) Quantity and distribution of employment?* No significant impact.

*(e) Distribution and density of population and housing?* No significant impact.

*(f) Demands for government services?* No significant impact.

*(g) Industrial and commercial activity?* No significant impact.

*(h) Utilities?* No significant impact.

*(i) Transportation?* No significant impact.

*(j) Safety?* No significant impact.

*(k) Other appropriate social and economic circumstances?* No significant impact.

**2. *Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts? No secondary impacts have been identified.

Cumulative Impacts? No cumulative impacts have been identified.

**3. *Describe any mitigation/stipulation measures:*** None

**4.** ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:***

No action alternative:

The applicant would not have the benefit of increasing economic returns from enhanced crop production benefiting both the applicant and the immediate region. The applicant's agricultural operation would have to continue without the previously stated benefits.

Alternative 1:

Approve the application and issue a provisional permit as submitted if the applicant proves the necessary criteria set forth in MCA 85-2-311 has been met.

Alternative 2: The applicant's project is located within several miles of Tiber Reservoir. A contract for irrigation water may be possible with the Bureau of Reclamation from Tiber Reservoir.

## *PART III. Conclusion*

***1.*** ***Preferred Alternative:*** Alternative 1.

***2.*** ***Comments and Responses:*** None

**3.** ***Finding:***
*Yes___ No_**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?*

*If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:* No significant impacts have been identified, therefore an EIS is not necessary.

*Name of person(s) responsible for preparation of EA:*

*Name:* Matt Miles
*Title:* Water Resources Specialist
*Date*: 05/05/2008